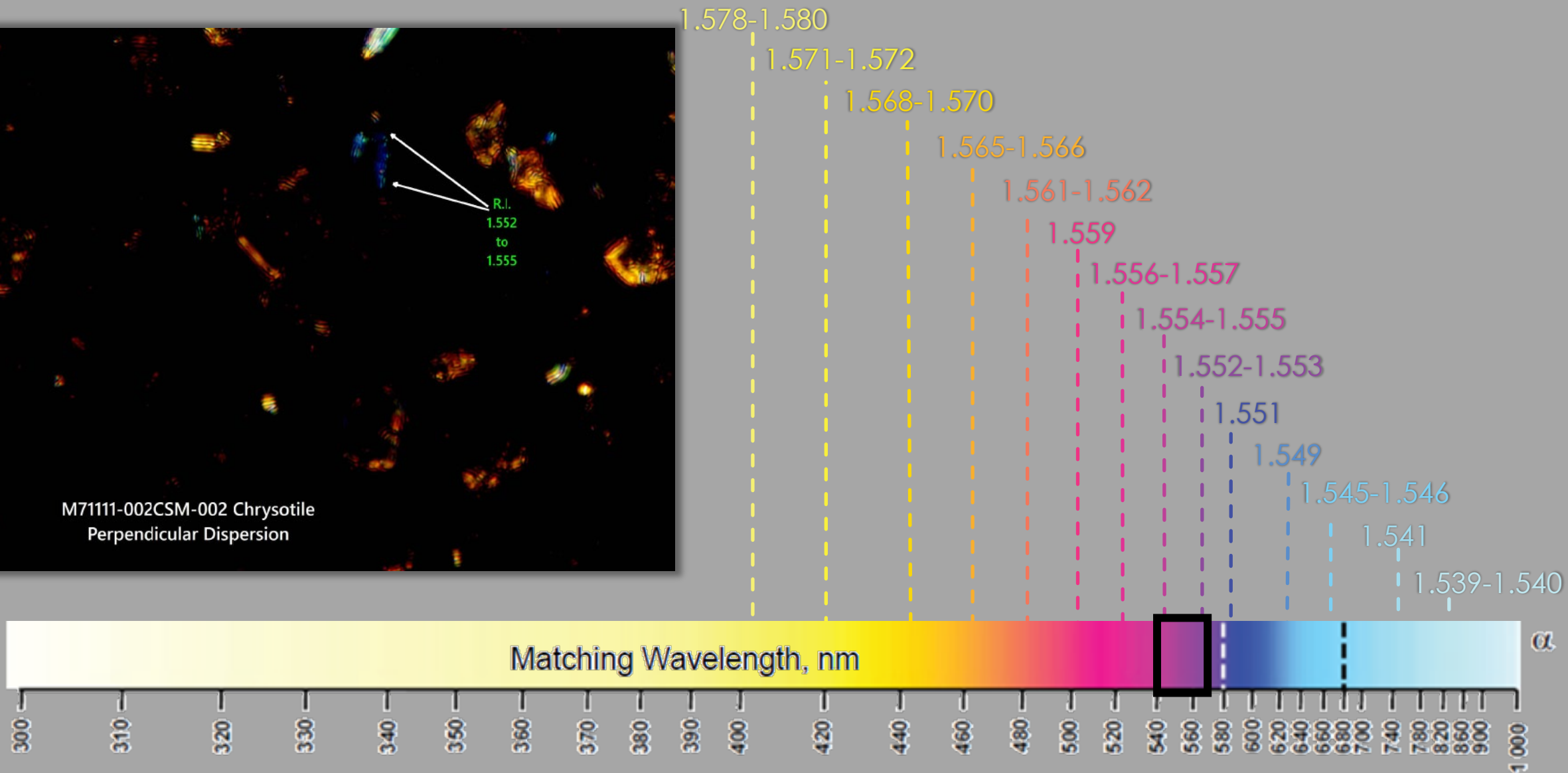
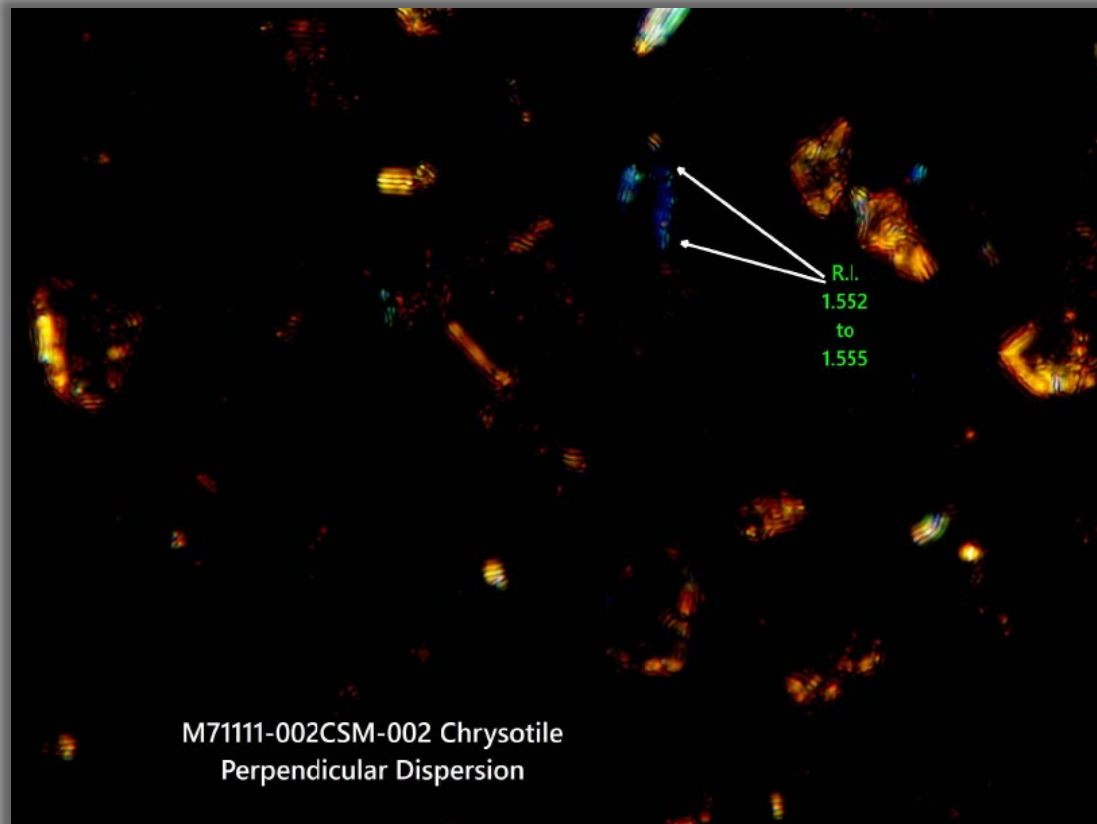


Exhibit 111

Part 2

Dr. Longo's Chrysotile: What Color Is This?

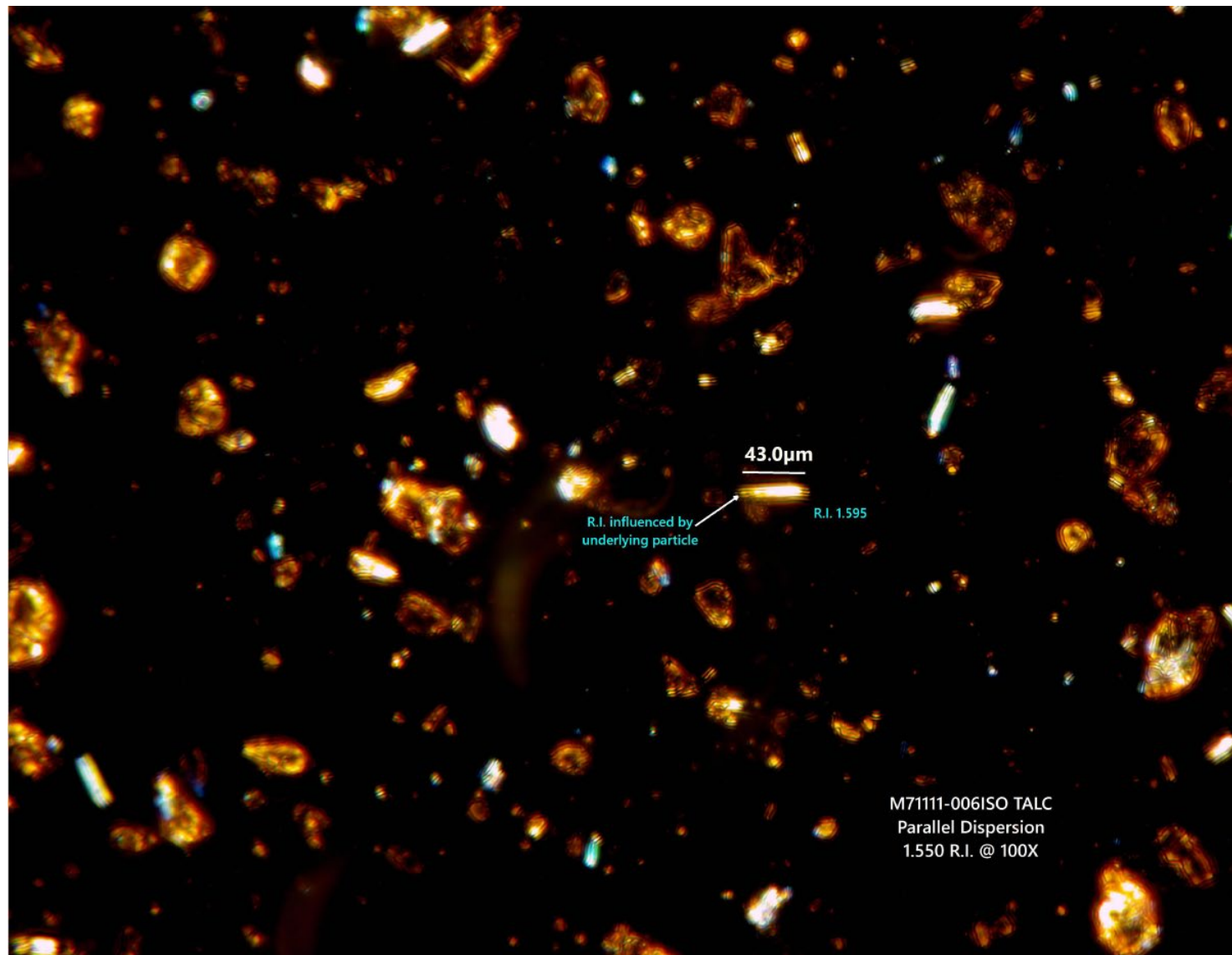
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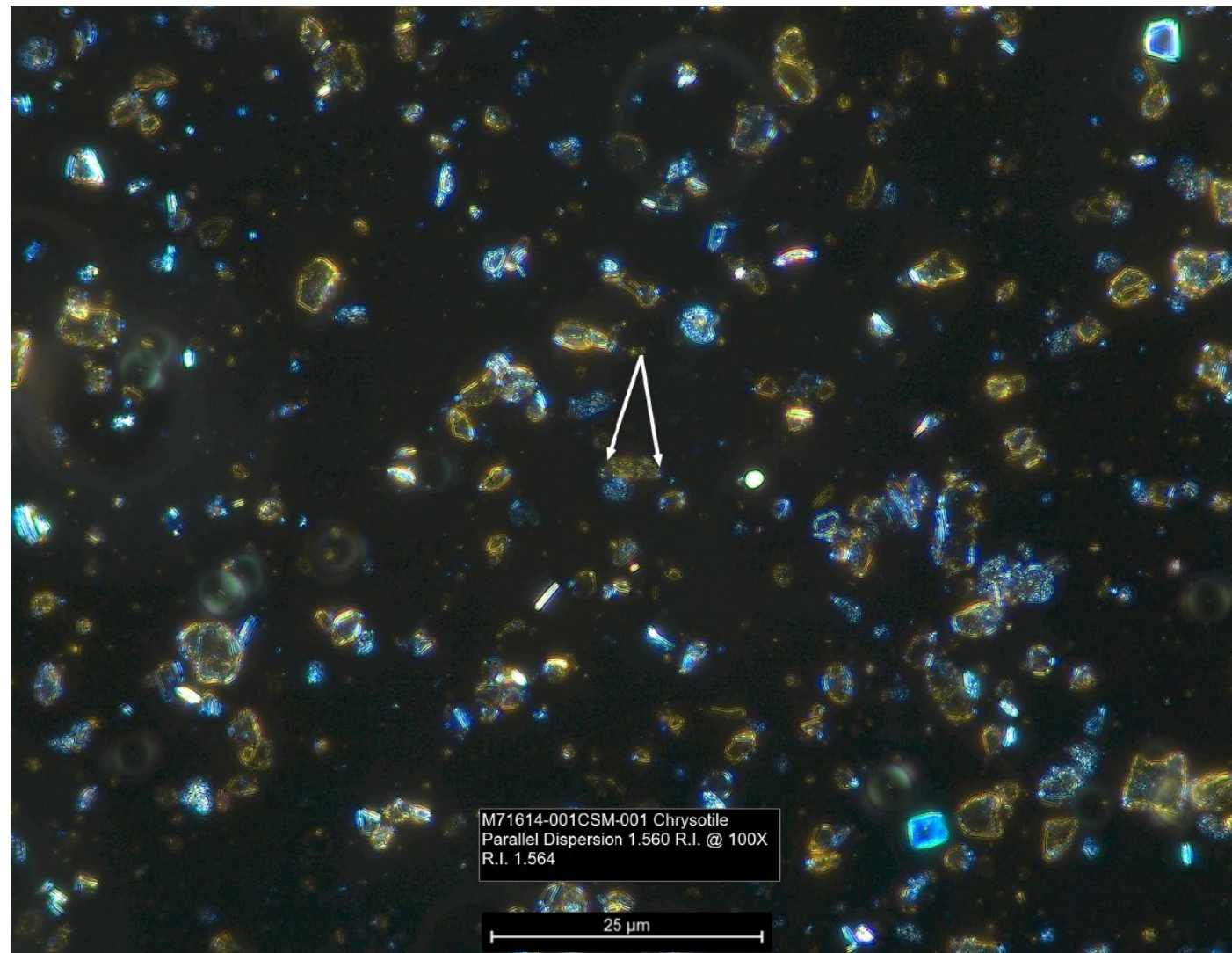


Su Affidavit

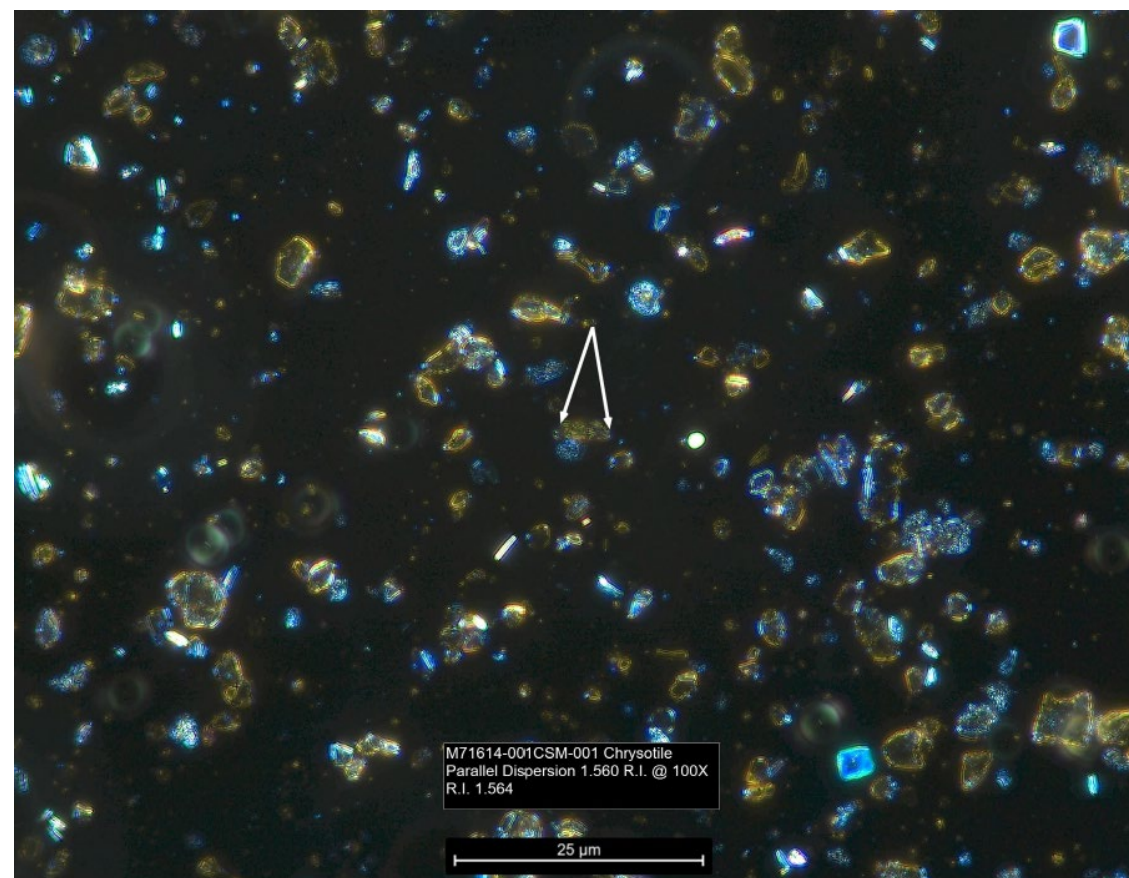
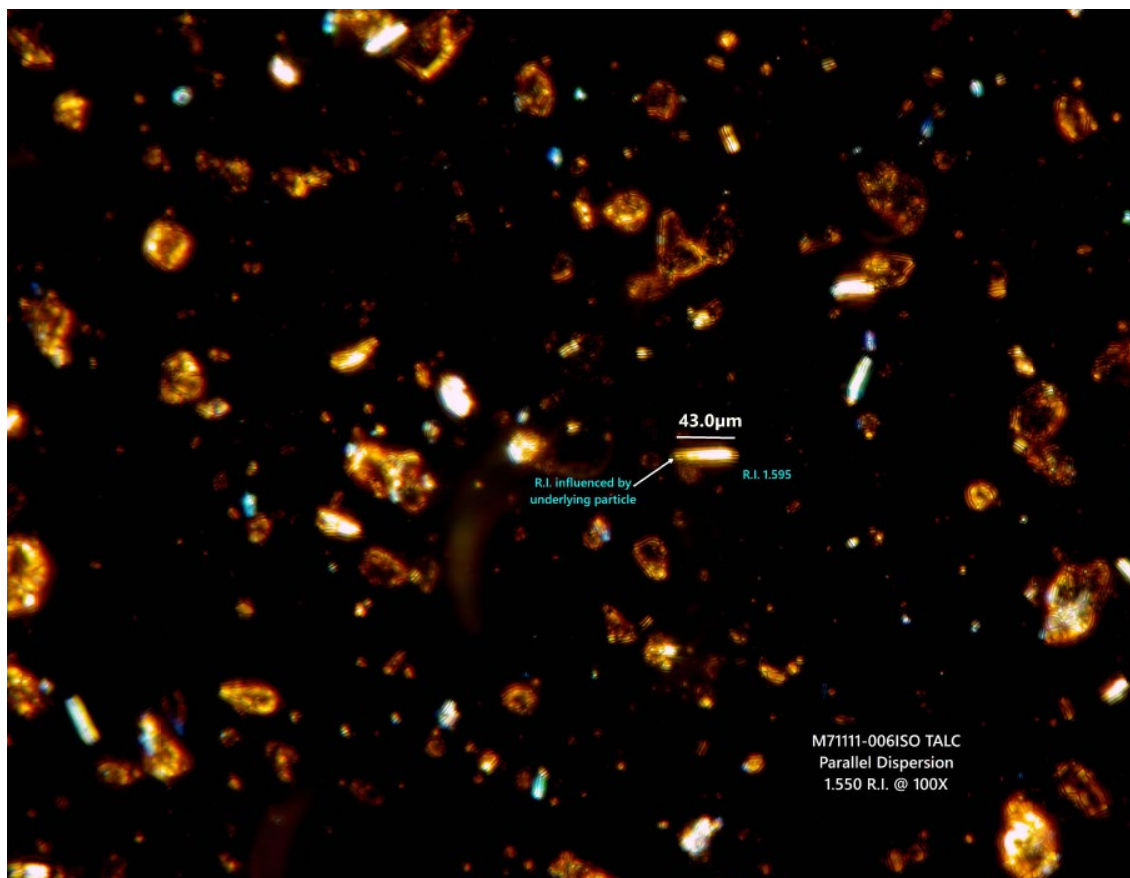
In this case, the rule of thumb is to *bring the yellow CSDS color to purple or magenta or blue range* by using an immersion liquid with a greater RI, such as 1.560 or 1.570 for crystal P at a *normal intensity of illumination* such as B in Fig. 2.

Sample With 1.550 RI



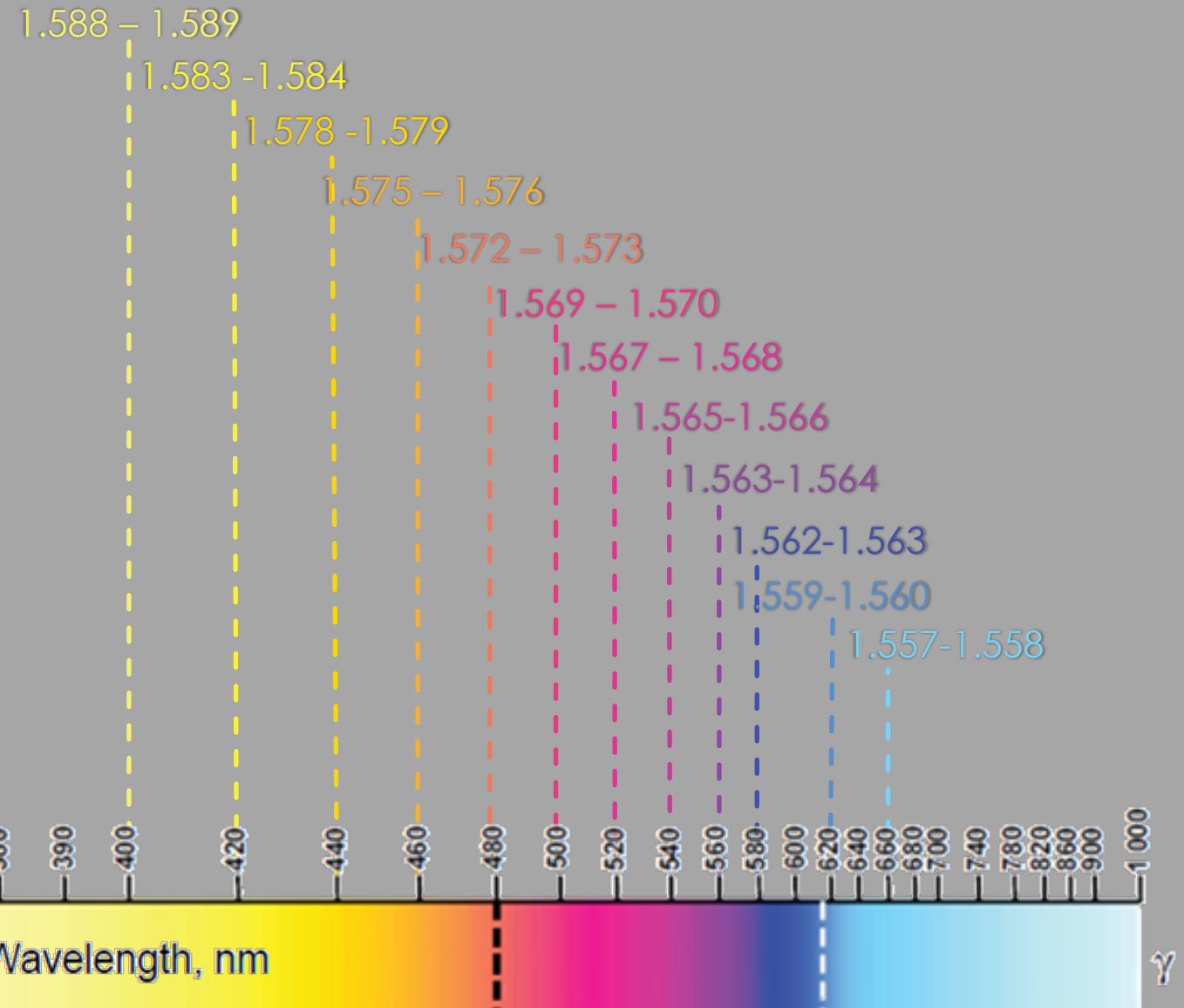
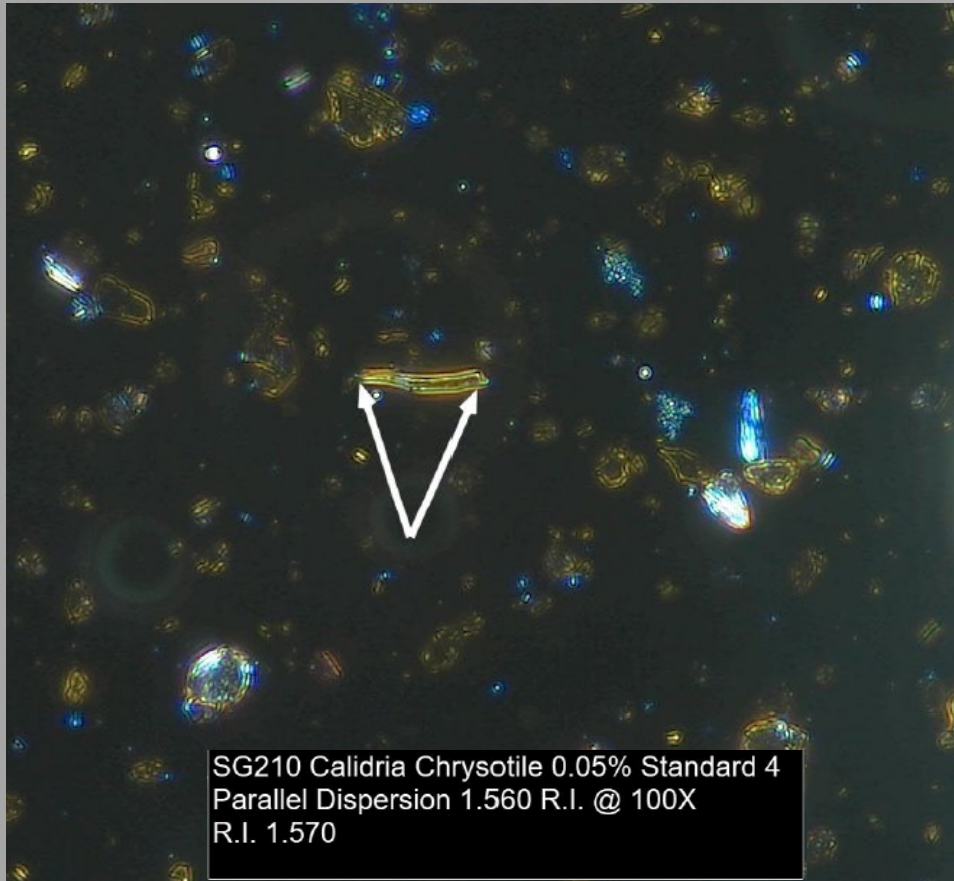


1.550 Vs. 1.560 RI



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Calidria References In 1.560



Su Refractive Indices

Table 5B. **Chrysotile γ** (In Cargille Series E: 1.560) γ

λ_0	19°C	21°C	23°C	25°C	27°C	29°C	31°C
400	1.590	1.589	1.588	1.587	1.586	1.585	1.584
420	1.585	1.584	1.583	1.582	1.581	1.580	1.579
440	1.580	1.579	1.578	1.578	1.577	1.576	1.575
460	1.577	1.576	1.575	1.574	1.573	1.572	1.571
480	1.574	1.573	1.572	1.571	1.570	1.569	1.568
500	1.571	1.570	1.569	1.568	1.567	1.566	1.566
520	1.569	1.568	1.567	1.566	1.565	1.564	1.563
540	1.567	1.566	1.565	1.564	1.563	1.562	1.561
560	1.565	1.564	1.563	1.562	1.561	1.560	1.559
580	1.564	1.563	1.562	1.561	1.560	1.559	1.558
589	1.563	1.562	1.561	1.560	1.559	1.558	1.557
600	1.562	1.561	1.560	1.559	1.558	1.557	1.556
620	1.561	1.560	1.559	1.558	1.557	1.556	1.555
640	1.560	1.559	1.558	1.557	1.556	1.555	1.554
660	1.559	1.558	1.557	1.556	1.555	1.554	1.553
680	1.558	1.557	1.556	1.555	1.554	1.553	1.552
700	1.557	1.556	1.555	1.554	1.553	1.552	1.551
750	1.555	1.554	1.553	1.552	1.551	1.550	1.549
800	1.553	1.552	1.551	1.550	1.549	1.548	1.547

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Birefringence of Talc vs. Chrysotile

Chrysotile: **Lower** Birefringence (Colors **Closer Together**)

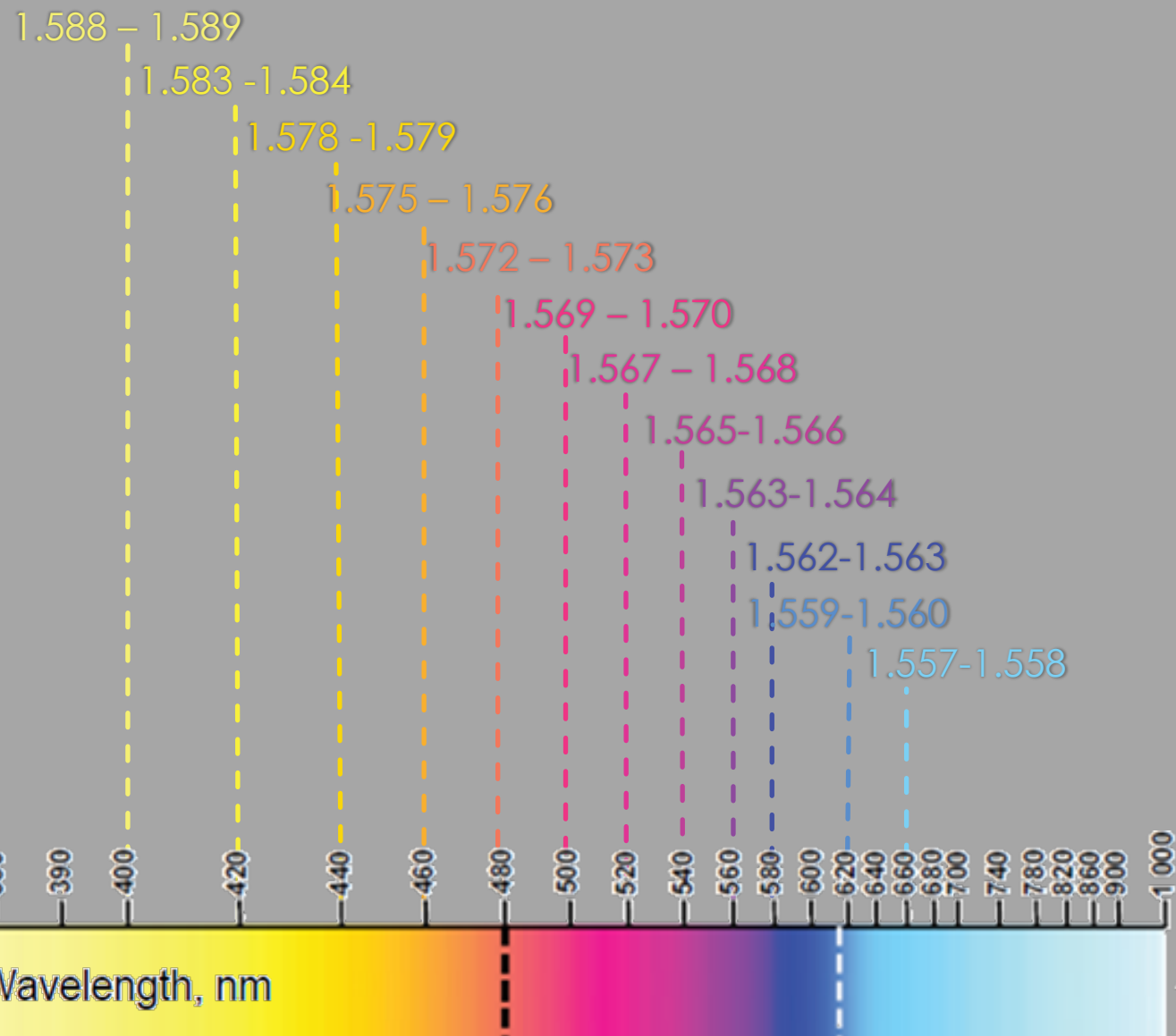
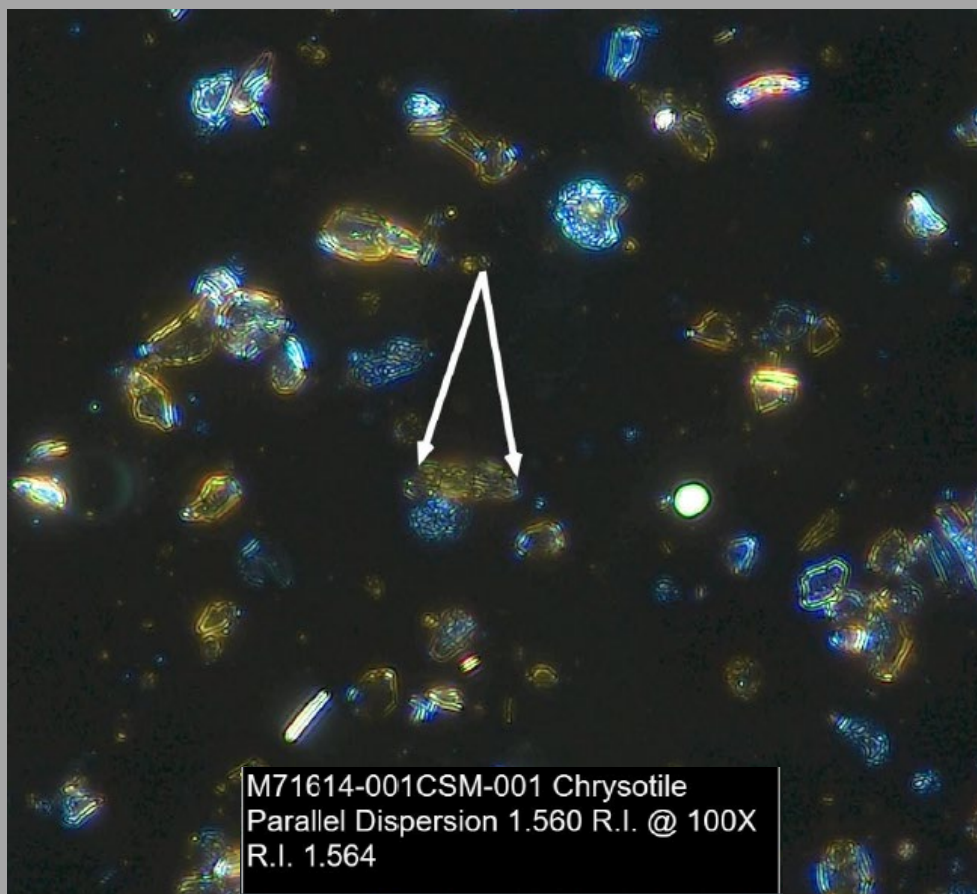


Talc: **Higher** Birefringence (Colors **Farther Apart**)



Dr. Longo's Chrysotile: What Color Is This?

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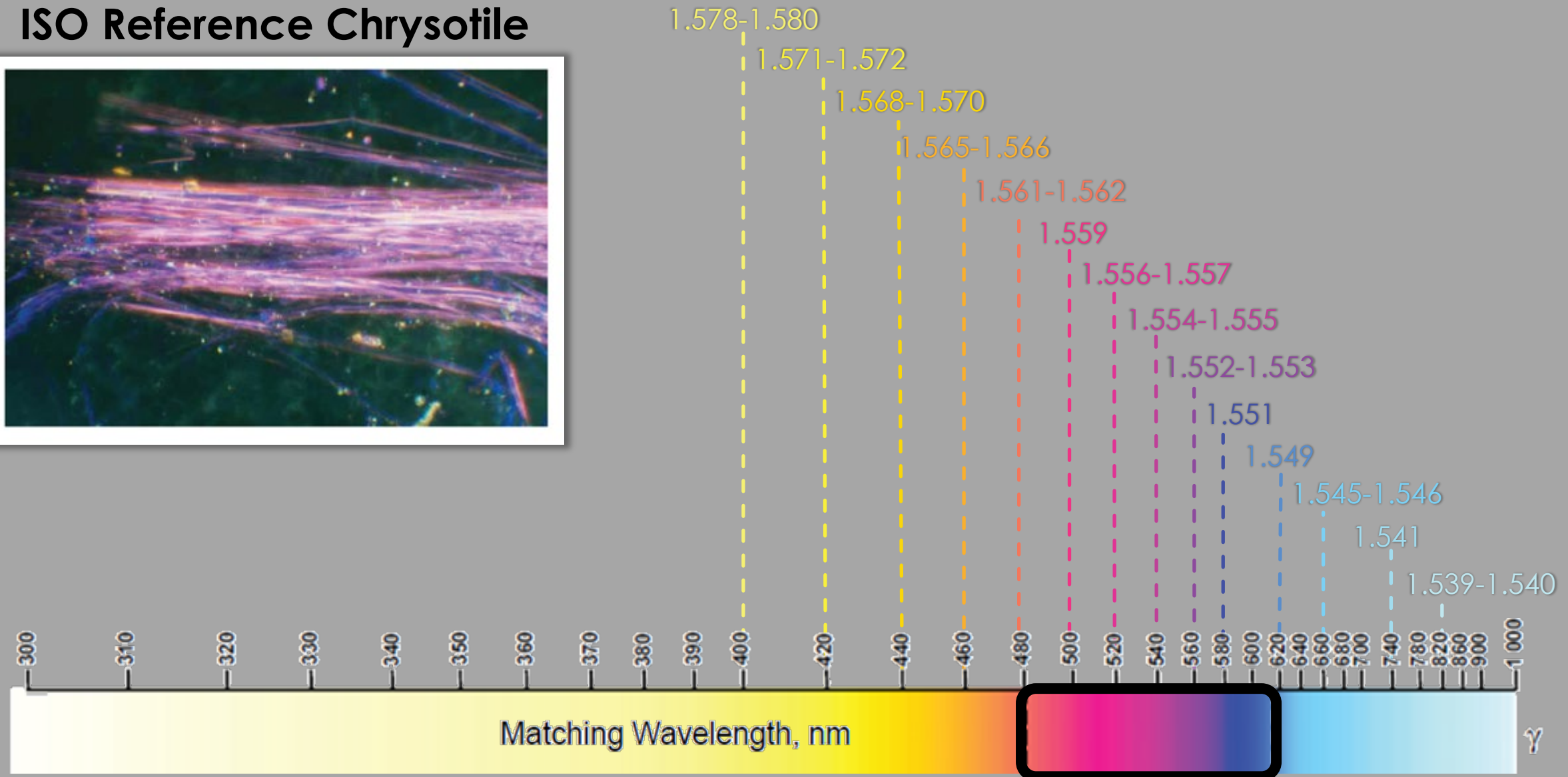
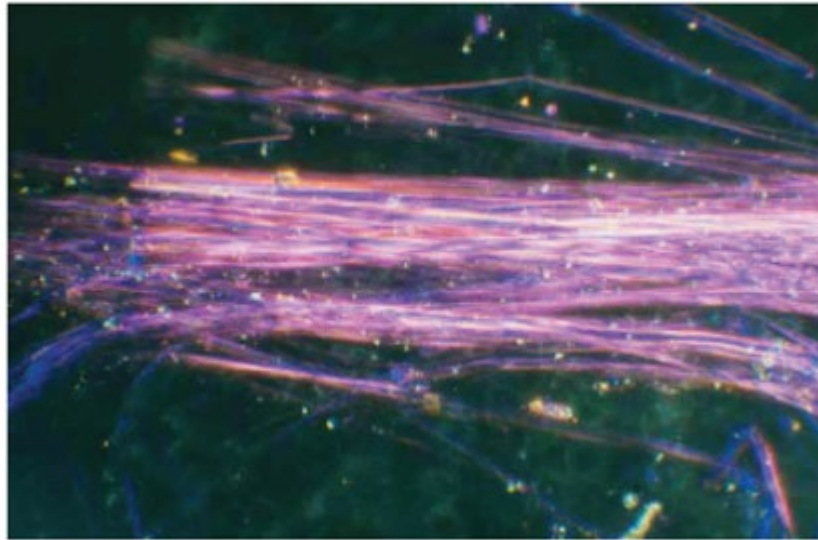
Su Refractive Indices

Table 5B. **Chrysotile γ** (In Cargille Series E: 1.560) λ_0

λ_0	19°C	21°C	23°C	25°C	27°C	29°C	31°C
400	1.590	1.589	1.588	1.587	1.586	1.585	1.584
420	1.585	1.584	1.583	1.582	1.581	1.580	1.579
440	1.580	1.579	1.578	1.578	1.577	1.576	1.575
460	1.577	1.576	1.575	1.574	1.573	1.572	1.571
480	1.574	1.573	1.572	1.571	1.570	1.569	1.568
500	1.571	1.570	1.569	1.568	1.567	1.566	1.566
520	1.569	1.568	1.567	1.566	1.565	1.564	1.563
540	1.567	1.566	1.565	1.564	1.563	1.562	1.561
560	1.565	1.564	1.563	1.562	1.561	1.560	1.559
580	1.564	1.563	1.562	1.561	1.560	1.559	1.558
589	1.563	1.562	1.561	1.560	1.559	1.558	1.557
600	1.562	1.561	1.560	1.559	1.558	1.557	1.556
620	1.561	1.560	1.559	1.558	1.557	1.556	1.555
640	1.560	1.559	1.558	1.557	1.556	1.555	1.554
660	1.559	1.558	1.557	1.556	1.555	1.554	1.553
680	1.558	1.557	1.556	1.555	1.554	1.553	1.552
700	1.557	1.556	1.555	1.554	1.553	1.552	1.551
750	1.555	1.554	1.553	1.552	1.551	1.550	1.549
800	1.553	1.552	1.551	1.550	1.549	1.548	1.547

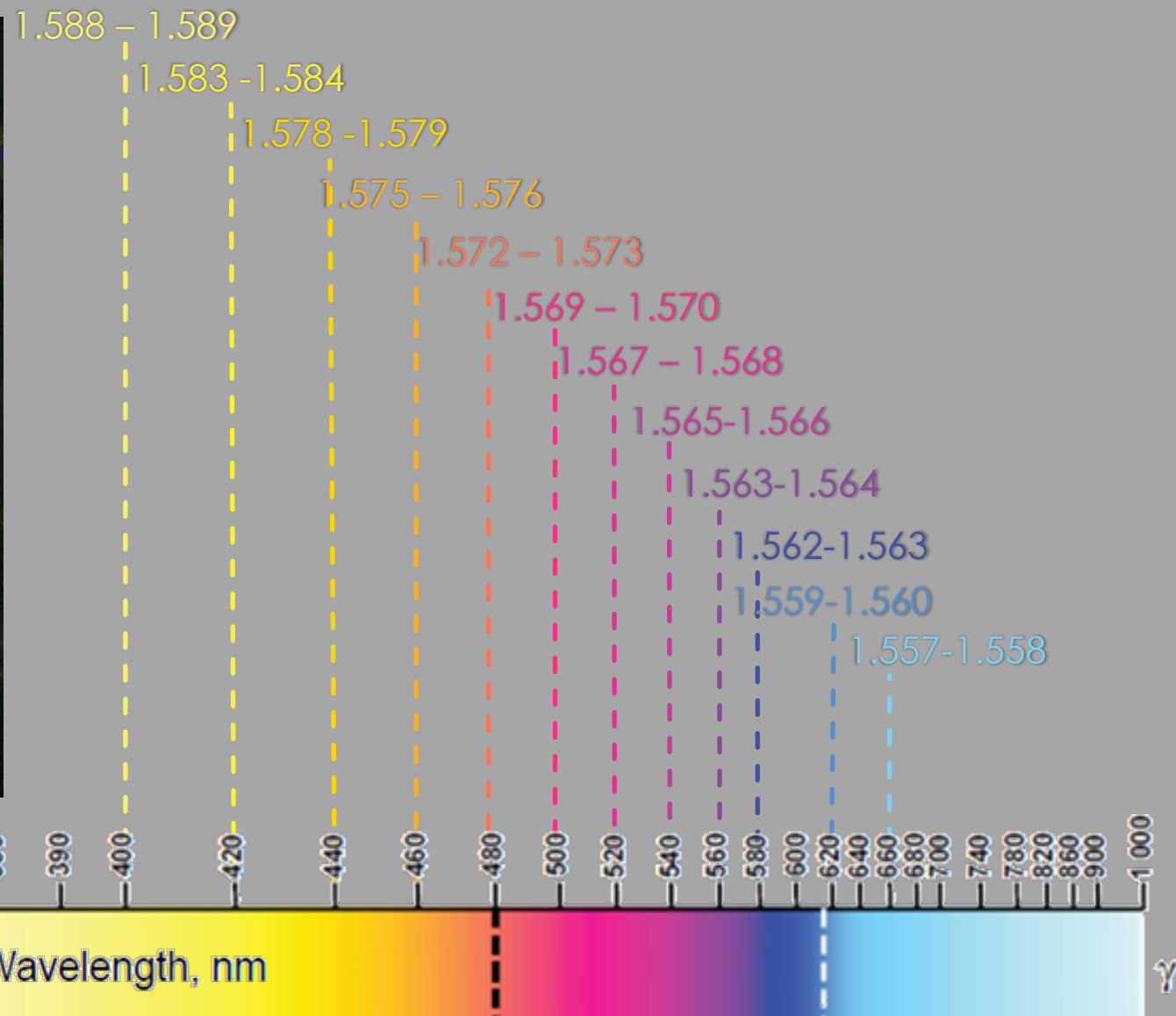
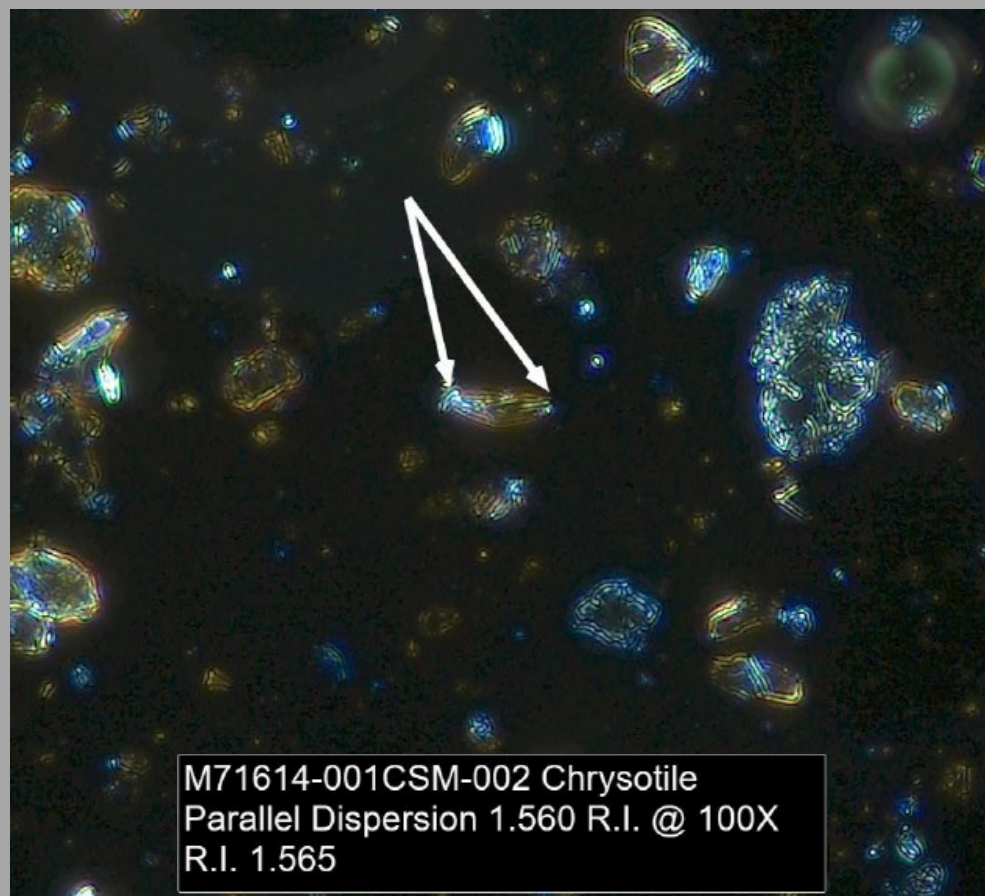
ISO Reference Chrysotile: Parallel

ISO Reference Chrysotile



Dr. Longo's Chrysotile: What Color Is This?

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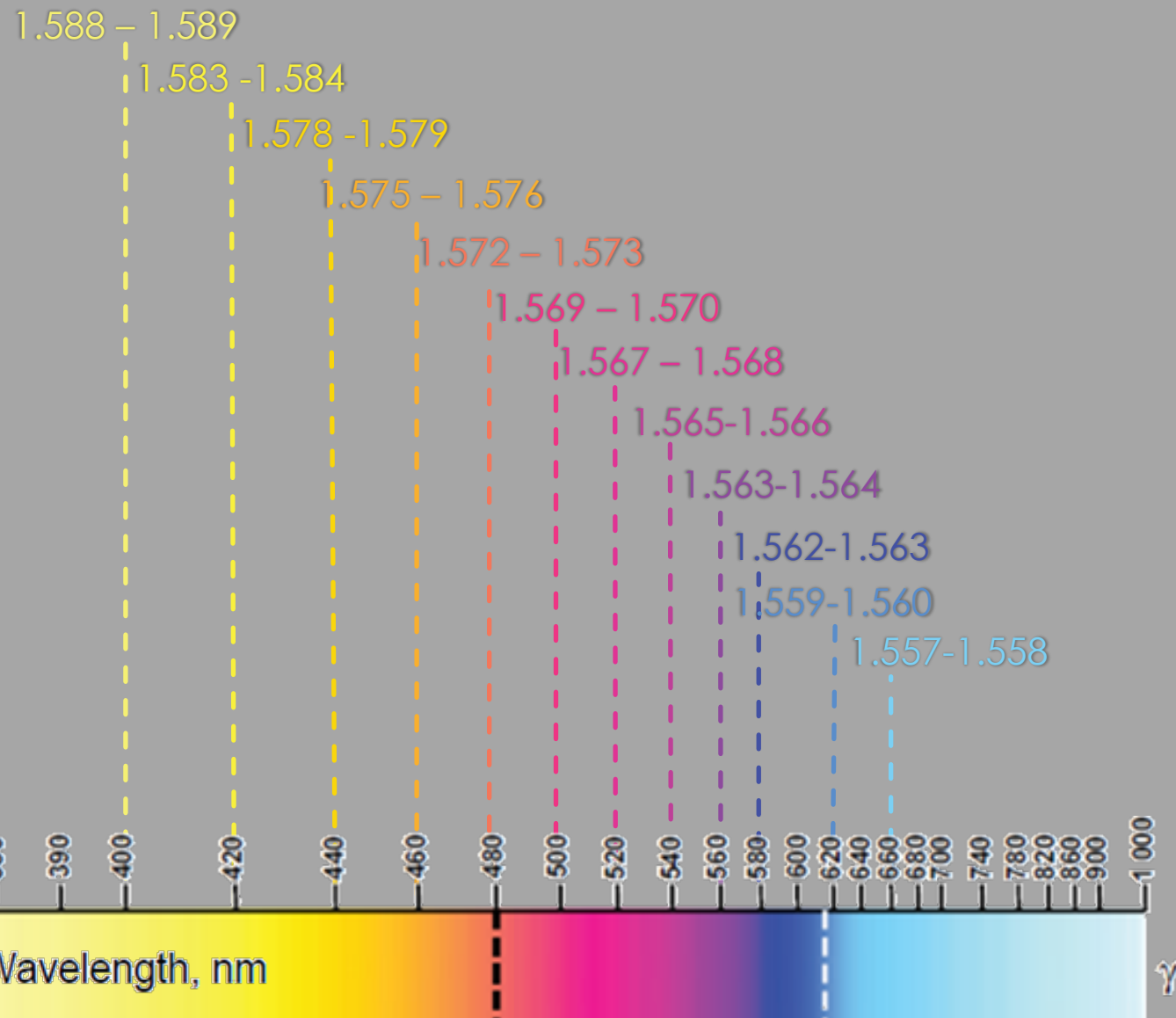
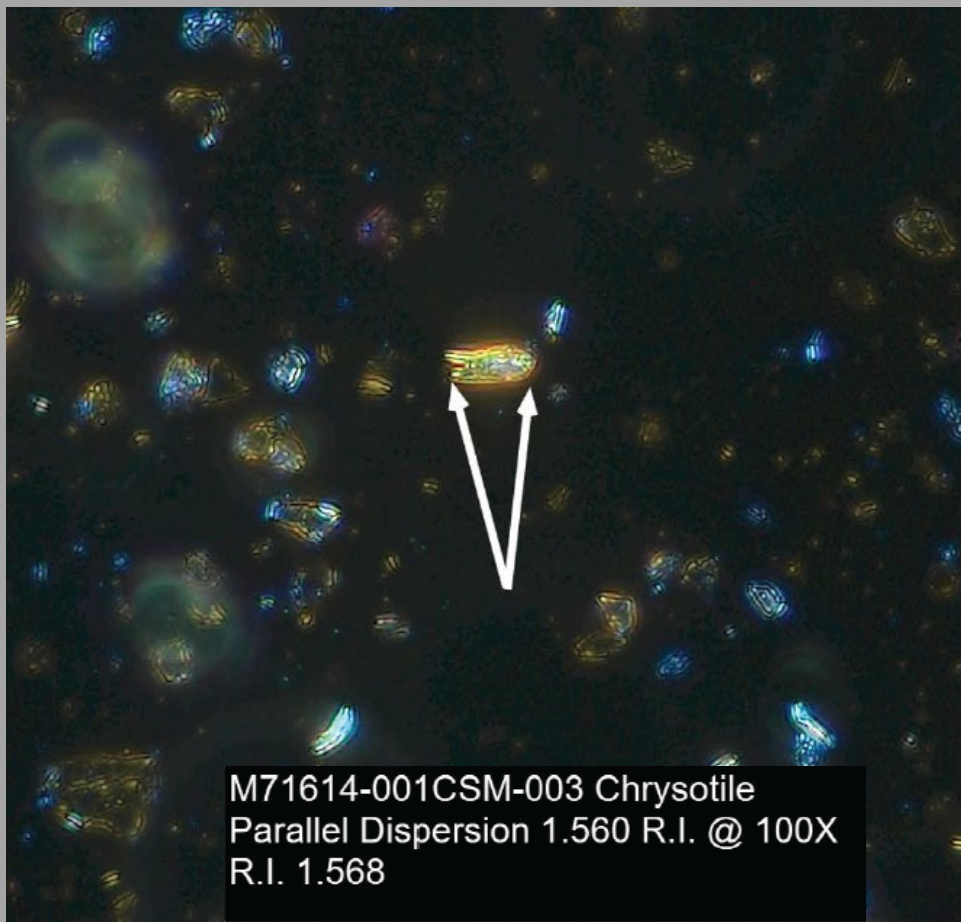
Su Refractive Indices

Table 5B. **Chrysotile γ** (In Cargille Series E: 1.560) γ

λ_0	19°C	21°C	23°C	25°C	27°C	29°C	31°C
400	1.590	1.589	1.588	1.587	1.586	1.585	1.584
420	1.585	1.584	1.583	1.582	1.581	1.580	1.579
440	1.580	1.579	1.578	1.578	1.577	1.576	1.575
460	1.577	1.576	1.575	1.574	1.573	1.572	1.571
480	1.574	1.573	1.572	1.571	1.570	1.569	1.568
500	1.571	1.570	1.569	1.568	1.567	1.566	1.566
520	1.569	1.568	1.567	1.566	1.565	1.564	1.563
540	1.567	1.566	1.565	1.564	1.563	1.562	1.561
560	1.565	1.564	1.563	1.562	1.561	1.560	1.559
580	1.564	1.563	1.562	1.561	1.560	1.559	1.558
589	1.563	1.562	1.561	1.560	1.559	1.558	1.557
600	1.562	1.561	1.560	1.559	1.558	1.557	1.556
620	1.561	1.560	1.559	1.558	1.557	1.556	1.555
640	1.560	1.559	1.558	1.557	1.556	1.555	1.554
660	1.559	1.558	1.557	1.556	1.555	1.554	1.553
680	1.558	1.557	1.556	1.555	1.554	1.553	1.552
700	1.557	1.556	1.555	1.554	1.553	1.552	1.551
750	1.555	1.554	1.553	1.552	1.551	1.550	1.549
800	1.553	1.552	1.551	1.550	1.549	1.548	1.547

Dr. Longo's Chrysotile: What Color Is This?

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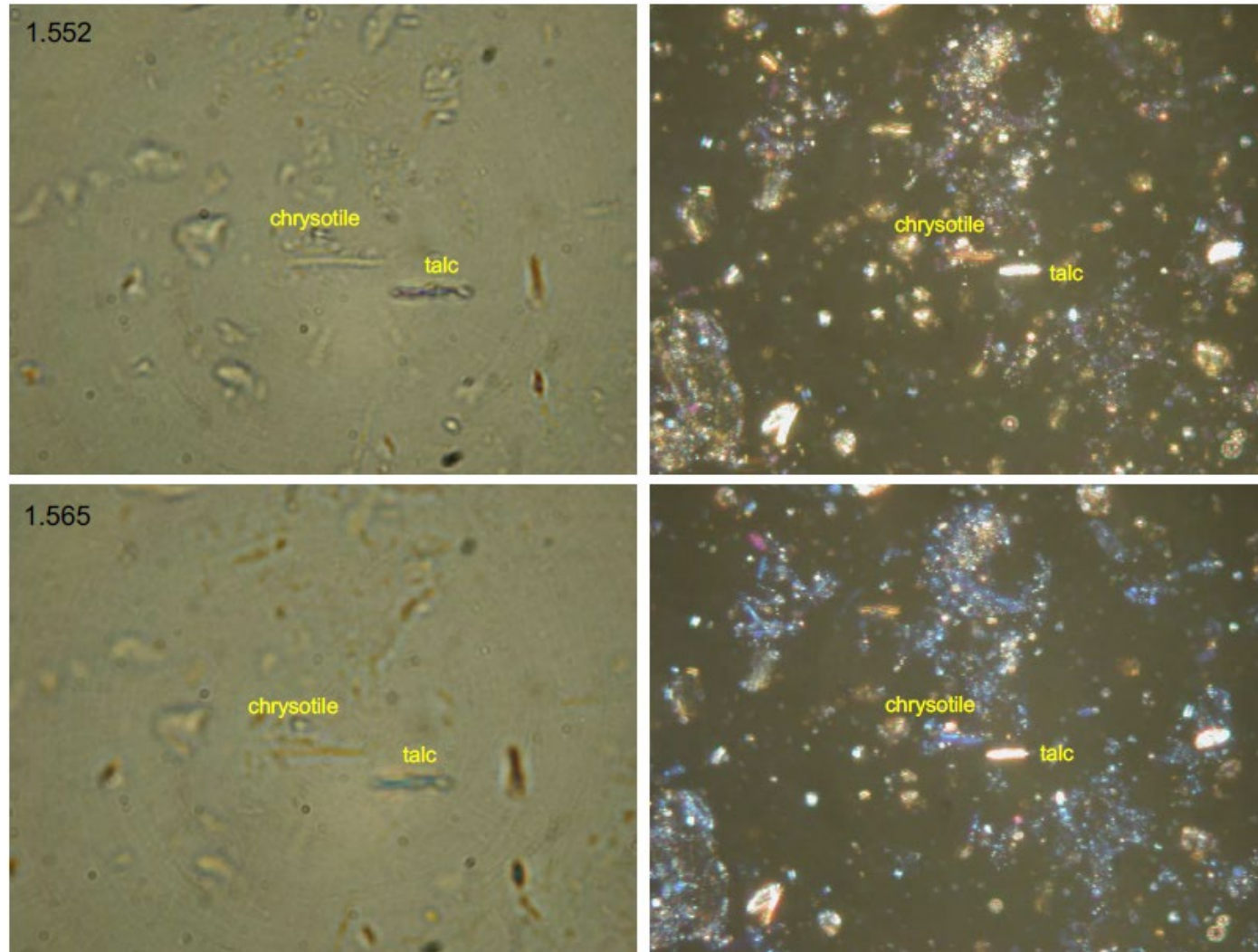
Su Refractive Indices

Table 5B. **Chrysotile γ** (In Cargille Series E: 1.560) λ_0

λ_0	19°C	21°C	23°C	25°C	27°C	29°C	31°C
400	1.590	1.589	1.588	1.587	1.586	1.585	1.584
420	1.585	1.584	1.583	1.582	1.581	1.580	1.579
440	1.580	1.579	1.578	1.578	1.577	1.576	1.575
460	1.577	1.576	1.575	1.574	1.573	1.572	1.571
480	1.574	1.573	1.572	1.571	1.570	1.569	1.568
500	1.571	1.570	1.569	1.568	1.567	1.566	1.566
520	1.569	1.568	1.567	1.566	1.565	1.564	1.563
540	1.567	1.566	1.565	1.564	1.563	1.562	1.561
560	1.565	1.564	1.563	1.562	1.561	1.560	1.559
580	1.564	1.563	1.562	1.561	1.560	1.559	1.558
589	1.563	1.562	1.561	1.560	1.559	1.558	1.557
600	1.562	1.561	1.560	1.559	1.558	1.557	1.556
620	1.561	1.560	1.559	1.558	1.557	1.556	1.555
640	1.560	1.559	1.558	1.557	1.556	1.555	1.554
660	1.559	1.558	1.557	1.556	1.555	1.554	1.553
680	1.558	1.557	1.556	1.555	1.554	1.553	1.552
700	1.557	1.556	1.555	1.554	1.553	1.552	1.551
750	1.555	1.554	1.553	1.552	1.551	1.550	1.549
800	1.553	1.552	1.551	1.550	1.549	1.548	1.547

Gunter Images

Figure 19: PLM images of a 50/50 mixture of Calidria 210 and Gold Bond #3 (upper row in 1.552 liquid, lower row in 1.565 liquid).



Longo: 1.550 RI vs 1.560 RI

